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TREATMENT OF ASIATIC CHOLERA.*

BY ELMER LEE, A. M., M. D., Ph. B., CHICAGO.

Spasmodic cholera—called also malignant, epidemic, Asiatic, Indian, blue, and pestilential cholera—is generally epidemic, though not contagious. The first symptoms are generally experienced during the night, sometimes beginning with a light general uneasiness and moderate diarrhea; at other times the symptoms come on violently and follow each other rapidly. In fatal cases death usually occurs at some period between six and twenty-four hours; in a few fatal cases the patient lingers two or three days. The ordinary course of symptoms are more or less diarrhea; the discharges at first feculent, but soon presenting the appearance of rice-water or gruel; there are flying pains, or sense of coldness in the abdomen, as if purgative medicine were about to operate; the countenance is pale; there is nausea, vomiting, prostration of muscular power, and nervous agitation; cramps in the legs, arms, loins and abdominal muscles, more or less severe; small, weak pulse, intense thirst, and urgent desire for cold water; in most cases cold, clammy skin; all these symptoms may appear successively or almost simultaneously. In some cases the premonitory symptoms exist for eight or ten days; and sometimes the patient is prostrated at once. When the disease comes on suddenly the cramps usually begin in the fingers and toes, rapidly extending to the trunk; the eyes are sunken and surrounded by a dark circle; there is vomiting and purging of white matters mixed with flocculi; the features are sharp and contracted; the expression of the countenance wild and confused. The face, extremities, and often the whole surface of the body, manifest a varying intensity of a leaden, bluish or purplish hue; the extremities shrunken, the nails blue, the pulse thready or wholly imperceptible at the wrist, arm, axilla, temple or neck; there is great restlessness, incessant jactitation, severe pain in the epigastrium, loud moaning or groaning; difficult and oppressed breathing; difficult inspiration, with short and convulsive expiration; voice hoarse, whispering, or nearly suppressed and plaintive; the tongue is white, cold and flabby, and the external temperature often sinks below 80 degrees; convulsions recur at short intervals, or a constant tremor exists. The secretions of bile, saliva, tears and urine are entirely suppressed, and a cadaverous odor exhales from the body. The patient retains his faculties to the last.

Some of the symptoms may be disproportionately severe, or may be entirely absent. Those usually regarded as pathognomonic are: watery dejections, blue appearance of the countenance or surface, thirst, coldness of the tongue and pulselessness at the wrist.

The foregoing description of the symptoms of cholera is indicative of the nature of the disease calling for human aid. The time in which to treat the patient sick with cholera is exceedingly limited. What is to be done must be executed with rapidity. There is not a moment to lose between the time when the patient is

* By request from the Journal of the American Medical Association.

first seen and the accomplishment of severely practical efforts. Many wise theories may be promulgated, but there are few practical measures that will prevail against Asiatic cholera. The experiences during the cholera epidemic of 1892 in Europe, both in Russia and Germany, produced in me a profound conviction that, for the most part, remedial agencies that have been used are of questionable utility. Nearly every prominent remedy proposed and tried has been found to end in greater or less disappointment. Years ago, great reliance was placed upon the far-famed "mild chlorid of mercury." Twenty and ten years ago this remedy was given in large doses. Three years ago, during the latest epidemic, small doses prevailed. Next to this, the synthetic drug salol, the product of the laboratory of the Imperial Institute of Experimental Medicine in St. Petersburg, was the most widely used and the most favorably received. Professor Nenski, the originator of salol, personally informed me that the value of the drug could not be seriously recommended as of much importance, but that it perhaps answered the requirements as far as any drug could answer, in the hands of his colleagues. Widely circulated and various reports, enthusiastically commending and moderately commending this remedy were received by the Professor in St. Petersburg, but he himself was silent as to its efficacy. The far-famed and seemingly unmatched drug, quinine, has been used, and has been held as a dazzling gem before the eyes of the profession by some of our best men, who believe that cholera is analogous to malarial disorders, and consequently the medicine which occupies the position of keystone in the arch, for malarial treatment, is a remedy suitable to contend with the rapid and desperate symptoms of Asiatic cholera. Quinine has a stout advocate in our own country, in the person of a well-known professor in one of the Ohio medical colleges. It was not used, to my knowledge, in the treatment of cholera during the last epidemic in Europe.

A remedy was brought to Hamburg during the latter part of the epidemic of 1892 by the representative of an English syndicate, who posed as a chemist, not a physician. His remedy was a preparation of iodin, to be administered through the mouth. He called the medicine a periodate, and made some experiments upon patients in one of the cholera hospitals in Hamburg. His remedy, however, was not favorably entertained by the medical authorities in charge of the cholera patients, and whatever claims were reported came through the interest of a friendly correspondent of one of the Hamburg weekly secular papers. To show how misleading some of our supposedly authentic information often is, it is only necessary for me to refer to the report given in the "Year Book of Medical Progress," published in Philadelphia. Of all the progress made, of all the combined investigations during the entire epidemic of cholera throughout Europe in 1892, and there was an immense amount of original investigation and great effort made to discover a remedy, the curious spectacle in the Year Book, which alone refers to the remedies brought by an agent of a syndicate from London to Hamburg, at the closing of the epidemic of cholera, shows that there are some things in our profoundest medical publications that are to be taken cum grano salis. Uretin was extensively used hypodermically for its alleged influence upon the secretions of the kidneys, upon the ground that the kidneys were to be aided by irritating them to greater functional activity to eliminate morbid elements through the urine. The result of many investigations recorded in Russian practice show that this drug is not to be commended. Digitalis was used, supposedly to benefit a weak heart. This remedy, if at all useful, could be little more than palliative. The use of acidulated water was extensively employed in different hospitals in Europe as a drink, but not prescribed as a remedy. The water was acidulated with HCl and H^2SO^4. Subcutaneous injections of salt water were made. The proportion of salt was one-half of 1 per cent., and the

amount of salt water injected subcutaneously was sometimes as much as a quart at a single injection. In one instance, during an illness of several days, as much as thirteen quarts were subcutaneously injected into the cellular tissue, principally that of the abdominal wall. This process of subcutaneous injection was known as hypodermaclysis. The purpose of the hypodermaclysis was to maintain the volume of the blood. The diminished volume of the blood is directly the result of the waste of its liquid portion or serum into the alimentary canal. In this serous discharge, flakes of intestinal mucus gave the name of "rice-water discharges" to the bowel evacuations, the particles having a resemblance to grains of rice. The general inflammatory state of the intestinal mucous membrane, throughout its entirety drains the blood of its liquid portion rapidly, and collapse due to stagnation of circulation quickly ensues.

The remedies mentioned are only a portion of those tried, but there is no living advocate who to-day can point with unerring certainty to one single organic or inorganic substance, howsoever administered, that can be safely depended upon in the treatment of Asiatic cholera. Both botany and mineralogy have been searched in vain for a cure for this disease.

The cause of this disease is perhaps accurately stated to be due to invasion of the blood, and secondarily, of all the tissues of the living organism, by toxins or ptomaines, which originate in the upper portion of the small intestine at the early stages of cholera. These products of organic activity, whether of animal or vegetable organisms it is here unnecessary to debate; but these noxious products enter the circulation through the villi of the intestine and rapidly and desperately poison the blood. It is clearly proved that the disease is the result of general blood poisoning from an intestinal origin. Whatever the chemic nature of the poison may ultimately be found to be, may be safely left to the bacteriologic laboratory. The practical and intensely important part that remains for physicians seeking to cure patients in times of this disease is to realize how much, as well as how little, it is within human power to do. The human organism is prostrated by a fierce and deadly poison. This poison is in the blood and in the cells of the tissues, and its work of destruction is quickly and effectually accomplished. Reflectively, to say nothing of experimental research, it would seem to me that the rational and only course that could be advocated with scientific assurance of relief is to, as far as possible, literally cause to be removed these products which are death-dealing to the body in which they happen to be found. Now, in this same reflective mood, think for a moment and try with me to determine whether it is possible in such conditions as produce the symptoms of Asiatic cholera, it is safer to introduce other poisonous products to neutralize the noxious elements in the blood and cells, or whether it is a better process to, without the introduction of additional foreign substances, remove what we already find in the blood. To make this proposition clearer, it could be stated in another way, namely, the body is already bearing a crushing burden; shall we add other foreign substances as an additional burden to the load already carried? The principle seems to me to be at fault. The principle is the principle of allopathy, but in the light of facts is it a safe principle to follow? It is reasonably scientific to produce in the laboratory definite results in vessels of glass by the use of fixed reagents; in the organic laboratory of the living body, no such definite results can be demonstrated. The vital principle is an entity which enters into the formula and may be represented by the unknown quantity x in algebraic equations. Great and laudable efforts have been made to prevent as well as to cure this disease by inoculation.

Ferran, of Valencia, Spain, thrilled the world ten years ago with his proposition of a universal cure for this disease. His glory was then at its zenith. His fame has long since

faded. So obnoxious became his proposition to the Government of Spain that laws were adopted to suppress Ferran's cholera inoculations.

A worthy colleague and laborious investigator, Professor Haffkin, of Pasteur Laboratory fame, proposed a modified inoculation for the prevention and cure of cholera in 1892. A reporter of the New York Herald was inoculated at the Pasteur Institute, and with credentials sent to expose himself to Asiatic cholera at Hamburg in September, 1892. The same porter had once before been inoculated by Ferran in 1886 and had the courage to make further exploits in behalf of his newspaper, at Hamburg. A very widespread opinion prevails in America that the exploit of the New York Herald reporter during the ten days' stay as a nurse in the Hamburg hospital, constitutes a proof of the validity of Haffkin's claim, but the scientific world of Europe knows differently. En passant, it may be interesting to state at this place that further experiments have been made by Professor Haffkin in India with the cholera inoculations and, unfortunately for the proposition, reports have recently come to me from reliable medical sources, that a greater percentage are attacked with cholera who have been previously inoculated than of those who have not been inoculated. This subject of prevention, however, is to be discussed by me in a paper to be read before the Section on State Medicine.

The result of prolonged reflection, covering many years, and the observations resulting from personal experience in the cholera epidemic in Europe of 1892, is the conviction that there is provided in the laboratory of the universe a remedy which surpasses the result of human ingenuity as much as does the sun surpass in brilliancy the light of the artificial lamp. The all-pervading and all-wide remedy, the greatest product of omniscient nature's laboratory, which alone can cope with this pestilential disease of the human race, is nothing more and nothing less than the unmatched, unmatchable H2O. Pure water is absolutely the only trustworthy cure for cholera, and if it came at a great price it would probably be more greatly valued. The human organism is so constituted that if it is assisted by H2O, every morbid element may be eliminated out of its domain. The acutely poisoned body quickly recovers its equilibrium and its harmony of action as soon as the processes of elimination can remove the invading poison. In the construction of the mucous lining of all the accessible cavities and channels it is prepared by an undiscernible law to successfully resist the entrance of every form of organism. The products of organic action alone are able to pass into the blood. If sufficient quantities of pure water, of a suitable temperature, are introduced into the body through the natural channels, it is actually possible to wash morbid products as well as organic forms of life, out of the human body. The mouth gives entrance to the causative germs in Asiatic cholera. That is quite conclusively established. The locality of the development and formation of the toxin in the earlier stages is determined to be in the upper end of the small intestine; and from experience, as well as from the powers of reflective analogy, there is no doubt that the system can be saved from death if the morbid entity, the germ, is literally deluged away from the alimentary canal by the copious use of a remedy that connot be of the slightest danger to the victim. The amount of water to be used varies in different cases. It is impossible to use too much; it is possible to use too little. From the earliest moment that the patient is seen the propositions should be, first, wash the whole alimentary canal with pure water; wash the lower portion by introducing irrigations of warm soapsuds or merely warm water into the color sufficiently frequently and sufficient in quantity to cleanse that portion of the bowel effectually. The frequency of washing that portion of the bowel which is accessible from the rectum should be one, or two, or three, or four times a day, according to circumstances. At the same time from one to ten quarts of warm pure water

mildly medicated with peroxide of hydrogen or hydrozone should be administered at regular intervals, during the day, as the prescribed remedy by the mouth. If the patient vomits, very well. Immediately reintroduce the quantity of water that was vomited. No harm can be done in any case, and if it is possible to save life it is possble to save it through this method. It is the quickest and the surest method of exciting the kidneys, and is the safest. It is the rational and effective measure for maintaining the volume of the blood. It is the scientific process by which to establish cutaneous circulation in the capillaries.

The use of simple and useful hygienic measures are the same as in other prostrating diseases. Patients should be fed with regularity at not too frequent intervals, giving the proper time, between administrations of simple food, for its digestion. The use of appliances for maintaining the heat of the body are not to be neglected.

The precise details of the method of treatment indicated at this time will be forthcoming in a subsequent paper.

100 State Street.

THERAPEUTICS.

By E. B. Pratt, M. D., Fairport, N. Y.

Dr. Johnson in one of his books remarks that mankind does not so much need instructing as they do reminding.

I think the same may be said of this society and in presenting a brief paper on Therapeutics I do not presume to instruct but only to remind you of some neglected points pertaining to our subject.

In certain of the sciences which are made up of different branches of study, there is one principal object which both unifies the science and determines the value of its different parts. In the science of medicine we have an illustration of this. There are its different branches of study, which in themselves have a real worth and also a relative value as connected with its great purpose, the prevention and cure of disease. Physiology, pathology or chemistry, for example, have a value as subjects of separate interest and investigation; but of how much more value to the physician, as progressive steps in the preparation which he makes for his daily duties. To correctly appreciate this relative value is plainly a most important and necessary condition to successful study of the science and prosecution of the art. In theory the truth of this may be readily admitted, but in practice it is often ignored. If we may judge from appearances, it seems to be thought of more importance to be able to diagnose a disease than to treat it; of more importance to be known as a bacteriologist, or pathologist, or physiologist than a successful and accomplished therapeutist.

In these departments of knowledge mentioned the advances which have been made are very great and valuable, and plant our science on a firm basis of reason and facts.

But when we turn from these captivating fields of study to the more prosaic, but not less useful one of therapeutics, we seem in comparison to have entered a barren and uncultivated region. If such a statement appears extravagant, we need but ask you to go back in memory to your college days, and recall how general it was in the clinics to give careful attention to the pathology and diagnosis of a disease, and then dismiss the treatment with a few prefunctory statements and remedies. Notice, too, how few books of original research are published on this subject as compared with those on the others; how little real enthusiasm for the study is manifested in the profession; how small an amount of space is given to it in our large journals, and in our society meetings how limited the time and interest granted to the consideration of therapeutics. Naturally, we may ask the reason of this indifference. It is because medicines and therapeutic efforts are valueless, or because we think they are, and so consider it unnecessary to give them much thought or trial. We assume here what we shall try to establish, as we go on,

that it is our want of knowledge of the action of remedies and remedial measures rather than their inertness that makes us lukewarm as to their examination and use. We inquire then as to the cause of this neglect. We notice first, that special enthusiastic study of this branch is not fashionable, and let it be said, so softly that the general public will not hear it, that doctors are as vulnerable to fashion's behests as the softer sex. A fad takes with them as it does with the ladies.

Very few graduates after leaving college and stepping out into independent life choose the field of therapeutics to become famous or experts in. The great ambitions and expectations engendered by college and professional associations run to more brilliant fields. At this present time, with the germ incubus firmly fixed upon the profession, and a consumption scare upon the laity, who had not rather pose, with meteor-like splendor, as a profound bacteriologist, bowing down to microbes, than to quietly illuminate the more difficult and obscure path of therapeutics, with painstaking, methodical labor. Is it not true that most of us had rather be distinguished as a great pathologist or expert diagnostician than a skillful prescriber?

Another cause and also consequence of this neglect is the skepticism as to the value of medicines in the treatment of disease. This unbelief certainly discourages, if not wholly diverts thorough work and study. There are some of our unbelieving brothers, perhaps more particularly those who go about with a curette in one hand and a drainage tube in the other, who are fond of declaring that the longer they practice the less medicines they use, and as we are supposed to grow more learned as we grow more experienced, what conclusion would more naturally follow with many than that a large faith in physics is synonymous with a large degree of ignorance. What better argument can we give to the public for the homeopathist than this, that the wiser we grow the nearer to nothing we become. With human nature as it is, the ordinary patient does not reconcile the expectant plan of treatment with his necessities. He wants his physician to do something more than to stand simply by his bedside and watch nature in her unmoved course towards a cure or death. Is not this distrust only the opposite swing of the pendulum from the numerous compounds, the large doses and useless drugging of former years? Is there not a golden mean yet to be reached when definite, certain and reliable knowledge of the action of remedies, singly and combined, will supersede some of the present vague and distrustful notions?

We remind you again, that the marked progress made in surgical science and skill has operated against the advancement of therapeutics. Surgery covers a large horizon; it stirs the ambition and offers great prizes, so much so that many would fain believe that there is nothing else of importance to do outside of their domain. The desire to operate grows by what it feeds upon, and in time how easily a surgeon comes to consider cutting as the only means of cure or relief from certain diseased conditions, and to regard in the same measure the more conservative efforts of physicians with contempt.

They claim already to have rescued numerous diseases from the domain of medicine, and thereby saved to the human family many a hopeless case beyond the power of the physician to help or cure. As striking examples, gynecologists would have us believe that about every ill that female flesh is heir to—as female flesh—can be remedied by removing some part of the uterine adnexa. If evolution and surgery should chance to operate together in the future, no one can prophesy what the new woman will attain to in the hereafter. We may take another example as to abdominal surgery. Some say if a person is constipated over 24 hours with a pain in the right groin, and a seidlitz fails to act, he has appendicitis, and his abdomen must be laid open at once. Others go still further and advise the removal of the appendix in

health as a precautionary measure. The reasoning is conclusive, take out the appendix and put it in alcohol and you cannot have appendicitis. Nothing plainer. It was only recently that I read in one of our medical journals of a physician who had treated 15 cases of the disease with sweet oil and all recovered.

Positive knowledge would result only from many observations, close scrutiny and careful reasoning—one reason, perhaps, why it has been neglected. One writer speaking of it says, "the task is a laborious one, the difficulties are great, but the knowledge that this is the sole path leading to the wished-for goal, the conviction that the smallest well authenticated fact in therapeutics is of profound importance, will inspire the perseverance in research requisite to make therapeutics an exact science, which may take equal rank with other branches of physicial study." The line of investigation for the future, by the wise, will be less search after new and fantastic remedies, and more thorough study of the old ones that we have. No two medicines are just alike, and special adaptation to special conditions will be one of the chief ends sought for. If I should ask why aconite or veratrum or antipyrine would meet certain states or variations of diseases better than digitalis or strophanthus or gelsemium, who would be ready to give an immediate answer. There can be no question but what every remedy, if it has any decided action at all, may be specific in one sense, in its individual action, which meets some peculiar diseased state. Dr. Squibbs says, "How can any well-balanced mind refuse to admit the special adaptation of drugs and the value of study, by which their uses might be developed and realized, in view of such examples as are furnished in the adverse action belladona and calabar bear upon the two extremely delicate planes of contractile fibres which constitute the iris, in the action of American hellebore on the heart, in the action of anesthetics upon the nervous centres, in the action of ipecac and buchu upon the mucous membranes, and in the action of ergot upon the uterus."

Physicians at the present time are in possession of better weapons of warfare against disease than formerly, and can make their use and usefulness more definite and certain. The advances in pharmaceutical skill and knowledge have given us not only purer and pleasanter medicaments, but more important still, the alkaloids—the active principles in separate and exact doses, whose use in time we believe will supersede that of most other preparations. In these pure products we have one active principle freed from extraneous matter, in the possession of which we have the first main condition for accurate study and advancement. Professor Laren recently said in regard to alkaloids, "It is with infinite pleasure that we proclaim to-day the immense benefit rendered to suffering humanity in introducing in therapeutics the alkaloids, and in general, the purest medicaments perfectly isolated and mathematically dosed." Therapeutics is a field in which all can engage, for it is not limited to specialists. It opens especially a wide door of usefulness and success to the country practitioner, who can excel there as well or better than the city or hospital physician. Our city brothers, I suspect, from some remarks they occasionally let drop, are apt to think that we in the country are slow in accepting and availing ourselves of the wide heralded advances in medicine and surgery, and I presume there is some truth in this. Being the backbone of the profession we have to be more conservative, and therefore become less inclined to pick up and ride the unproven fads and hobbies as they are sterilized and put forth by some German or French scientist. Be that as it may, the general practitioner, city or country, has a better opportunity than others to make for himself a speciality, a specialist in thearapeutics, for he has to be in touch with all diseases, all ages, and all temperaments. And in the present state of the practice of medicine is it not due to ourselves, as general practition-

ers, that we replevin some of our lost heritage, for it is true that we have lost ground. Between the enlargements of hospitals and hospital staffs the increase of free dispensaries and dispensing, between the specialist, the trained nurse, the midwife, the Boards of Health, the Christian scientist, the faith cures, the sanitariums, the patent medicine men, the cancer cures and the bacterian, the general practitioner, one time honored and able, has fallen among more thieves than that ancient traveler overtaken on the road to Jericho. And why should the family doctor, the most valuable member of the profession, become one who merely shakes the tree, while the fruit falls around into these different baskets. Is it not partly our faults, and the remedy in our hands, and is not this the remedy, that we must be better therpeutists and by a greater success in curing or relieving or palliating disease, hold our patients from leaving their first love and wandering after other gods.

Abstract from N. Y. State Med. Reporter.

ANTISEPTIC TREATMENT OF THE NAVEL IN THE NEWLY-BORN.

Schliep (Therap. Monatshefte, June, 1895) advocates antiseptic treatment of the stump of the umbilical cord after childbirth, instead of the usual dirty treatment commonly adopted. He mentions Schroder, who insisted on strict asepsis during and after treatment of the cord by means of antiseptic baths and treatment of the stump with dermatol, which hastened the process of mummification. By this means Schroder showed that many sources of infection were avoided, especially contamination by dirty bath water. Schliep advocates this treatment, but substitutes for dermatol a 2 per cent. solution of silver nitrate, applied twice daily by means of a brush. He states that the day after birth the stump begins to become dry and leathery, on the second day it has shrunk to a fifth of its normal size, and on the fourth day the treatment is complete.

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THE ETIOLOGY OF GOITRE.

Dr. H. C. L. Morris, writing in the British Medical Journal, speaks of his experience with goitre in Hambledon, a small town of two thousand inhabitants in Buckinghamshire, England. In the space of two and a half years fifty-five well-studied cases came under his observation. The soil of the district from which the patients came was extremely chalky, the chief source of water-supply being from wells sunk into the chalk. All of the cases were water drinkers, only four of the number males. The ages ranged from four to seventy-six.

The conclusion to which Dr. Morris' study leads is that the presence of calcium and magnesium carbonates in the water was the sole cause of the disease in his cases. In making this statement he does not exclude the possibility of other causes

in other regions. The writer is confident that heredity had nothing to do with the etiology of his cases. In but one case was there the slightest suspicion of it as a causative factor. Nor was he able to determine that intermarriage played any part in the propagation of the disease.

Altogether the communication is a valuable one, and throws new light upon a still more or less open question.

CEREBRO-SPINAL MENINGITIS IN AN INFANT.

A case of meningitis at the unusually early age of six days is reported by Dr. T. M. Rotch, in the August number of the Archives of Pediatrics. The infant was healthy at birth and remained in perfect health for six days, when she began to have convulsions. The temperature rapidly rose, reaching 104.2 degrees F. The temperature subsided somewhat, but the convulsions were frequently repeated until they reached fifty in number. Death occurred on the eighth day of life.

The onset of the attack followed a period of extreme nervous excitement of the mother, who was nursing the infant. When first seen by the author in consultation with Dr. W. L. Richardson it seemed possible that the convulsions were of a reflex form, such as might follow from disturbance in the breast-milk. The absence of retraction of the head, opisthotonos, any abnormal symptoms connected with the eyes, and the perfect tranquillity and apparently healthy condition of the infant in the intervals of the convulsions, made the supposition of the convulsions being reflex still more probable.

The post-mortem examination was made by Dr. W. F. Whitney, eighteen hours after death. The calvaria presented nothing abnormal. The inner surface of the dura mater was covered with opaque, yellowish patches, the lymph being especially marked over the base of the skull. The vessels of the pia mater were filled with an opaque, greenish-yellow, purulent exudation. This extended over the entire brain and into the spinal canal. Microscopic examination showed the presence of large micrococci, usually associated in pairs, two of which were sometimes united with a chain of four (pneumococcus). Other organs of the body were normal. The condition was, therefore, acute cerebro-spinal meningitis with general venous congestion. The author reports the case to warn us that a most guarded prognosis should be given in all cases of infantile convulsions.

THE WHEEL A GREAT FACTOR IN THE DEVELOPMENT OF THE FRENCH WOMAN.

According to the recently expressed opinion of Dr. Championniere, member of the Academy of Medicine, Paris, the advent of the bicycle has proven a great boon, especially to French women. It has increased her muscle and expanded her lungs, relieved her of superfluous avoirdupois, improved her carriage and gait, while her heart and brain are stimulated to normal healthy action. Dr. Championniere bases his conclusions upon close investigations covering the past four years.

Our subscribers will do well to investigate our bicycle offer for themselves or their patients.

Surgery.

IN CHARGE OF

DR. T. H. MANLEY, New York.

THE BICYCLE FROM A SURGICAL STANDPOINT.

From the medical point of view, this subject has chiefly been discussed in connection with the effects of overexertion. The latter are well-known, are observed in every form of outdoor exercise, and form, with the greatest propriety, a text for warnings the neglect of which may bring about, in some instances, quite serious results.

As surgeons, the important question to us is whether bicycling has a tendency to bring about any peculiar bodily malformations due to its use,

whether moderate or excessive and to cause any distinct surgical diseases.

In the very first place we must speak of the leaning over indulged in, to a greater or less degree, by the majority of wheelmen. It would necessitate the printing of many and corpulent volumes to produce all the exaggerated and nonsensical statements that have been published in reference thereto. As a matter of fact, the writer, whose experience with bicycles dates back nearly a quarter of a century, is convinced that an absolutely erect position of the body, while riding a bicycle, is a mistaken one and is fraught with possibilities for harm. Sitting absolutely straight in a bicycle saddle tends to throw all the weight upon the rider's seat, whereas a certain amount of leaning forward distributes the weight more evenly, as the shoulders then bear an appreciable amount of the burden. A moderate amount of bending forward facilitates the steering, gives better play to the pull of the arms upon the handles and allows of greater force being applied to the pedals. An exaggerated leaning forward may certainly produce a gradual vertebral displacement, and is decidedly ungraceful.

If a race meet is attended, and the interested looker-on closely observes the athletic contestants, he will certainly notice that they are as straight and well set-up a lot of young men as can usually be seen, and that their bent positions appear to be entirely reserved for the actual riding time. Now that nearly every young man, and a good many old ones, ride, we will certainly occasionally see cases of spinal difficulty in bicyclists, but we will have to use caution in asserting that the wheel itself has been at fault. A hump backed gentleman of our acquaintance, who rides a wheel and enjoys it greatly, told us the other day that on several occasions he had been asked if the wheel had not "done it," and that he has been pointed out as an awful example. But as his hump dates back from his nursing days he continues his riding.

Upon somewhat better ground attention has been called to the possibilities of rectal and prostatic troubles due to bicycle riding. The writer feels justified in saying that such troubles rarely occur as a direct result of wheeling. Hemorrhoidal troubles are so nearly universal in men that caution is needed in ascribing ther occurrernce to the use of the bicycle in every instance in which they happen in a rider. It is easily conceivable that if the saddle, or the clothes worn by the rider, chafe or irritate the peri-anal region in an individual whose digestive organs are not in good order, an attack of piles may occur.

As for prostatic troubles, we have been assured that some have been observed as direct results of riding. In our long experience of wheeling we have failed to see any cases, but there is good reason to believe that caution is necessary in advising male adults to ride, and that the existence of prostatic trouble should be a signal for giving up the wheel.—International Journal of Surgery.

THE RADICAL CURE OF UMBILICAL HERNIA.

Lucas-Championniere (Revue de Chirurgie, 1895) advocates the radical cure of umbilical and epigastric hernia. Although such treatment is not so frequently applied to these as to other hernias, the indications for operation may be regarded as more urgent in the former.

Umbilical hernia usually attains an enormous size and causes much discomfort. It is never effectually retained by truss or bandage. It assists in bringing about rapid organic failure, marked by diabetes, albuminuria, and premature senility, and is almost always complicated by obesity and pulmonary emphysema. When the hernia has acquired a considerable volume it is no longer amenable to surgical treatment, as the swelling will very probably return through the large opening in the abdominal wall. In cases of small umbilical hernia a solid radical cure may be effected. As umbilical hernia presents itself in many forms, it

is impossible to state absolutely the details of the operation for radical cure.

In this, as in other forms of hernia, the main objects of such treatment are to remove the sac, to secure its pedicle, and to close the orifice in the abdominal wall by sutures arranged in rows, so as to establish a firm cicatrix. In most cases in which the sac is removed it is necessary to excise the umbilicus.

In operating upon umbilical hernia, the author usually removes a large mass of omentum, and thus by reducing the tension of the abdominal walls lessens the tendency to relapse.

The opening in the peritoneal cavity is to be closed by five rows of sutures, one for the peritoneum, one for the skin, and three for the different muscular layers.

The author has operated eighteen times with good results, but in some of the more severe instances he had to contend with serious symptoms of pulmonary congestion.

He had also operated in eleven cases of epigastric hernia. This form of hernia, unlike umbilical, has hardly any tendency to increase in size. It is usually painful, and often accompanied by vomiting.

The hernial orifice should be freely ercised, and the sac drawn forward, opened, and detached from surrounding parts and removed together with any omentum it may contain. The pedicle of the sac should be ligated before division as far back as possible. The opening is then closed by three rows of sutures, one for skin, one for peritoneum, and a third for the intermediate portions of the abdominal wall. In the author's practice this operation has never been followed by a relapse.—University Med. Mag.

THE OPERATIVE TREATMENT OF WRY NECK.

Mikulicz (Centralblatt fur Chirurgie, 1895), being dissatisfied with the results both of subcutaneous and open division of the sterno-mastoid in cases of wry neck, advocates almost the total removal of the contracted muscle, the posterior part of the upper extremity, where it is traversed by the spinal accessory nerve, being left. He has operated upon seventeen cases with success, the only bad results being the disfigurement of the neck caused by the absence of the muscle. Examination of the extirpated muscle in these cases has convinced him that wry neck is the result of a chronic inflammatory condition (myositis fibrosa) involving the whole of the sterno-mastoid muscle. This condition he attributes in congenital cases to compression of the muscle during a long, difficult labor than to laceration. The so-called hematomata of the sterno-mastoid sometimes observed in infants is not due to effusion of blood, but to thickening and induration of the inflamed muscle.—University Med. Mag.

Electro-Therapeutics.

IN CHARGE OF
DR. S. H. MONELL, New York.

STATIC ELECTRICITY — METHODS OF ADMINISTRATION.

Article 3.
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The most soothing application is the positive breeze. With this the electrode may be held quite near any part of the body. It does not easily give off a spark to startle the patient unexpectedly, and it does not tend to irritate, but it involves a negative insulation which is not only often less effective than the positive, but is occasionally undesirable. The positive breeze may be applied to the head, spine, or any part of the body with very little fear of irritating the patient. Not so the negative breeze with positive insulation, attaching the electrode either to the negative pole or to the gas fixture. Upon uncovered surfaces it is prickling (and for many exceedingly unpleasant) if the electrode is held at a distance. To be agreeable it requires to be held almost as near as may be without drawing a spark, and two or three inches is my usual rule. A head breeze can be given in this way if

the patient is bald, but if hair abounds upon the head, or if applied to any clothed surface, the electrode must not only be removed to a distance—12 to 20 inches or more—but the breeze should be kept in gentle motion to avoid an annoying prickling in certain spots. The thickness and quantity of the hair may make it difficult to give this form of breeze from a stationary electrode, although the patient may sway the head from side to side to suit his or her sensations. Upon the head also, a lady's hairpins, if metallic, may play havoc with your efforts to please, and it is the writer's custom to substitute vulcanite hairpins before commencing treatment. Occasionally metallic ornaments about the neck will cause discomfort, and should be protected, removed or avoided by the operator. About the spine and abdomen steel buckles, buttons and corset ribs may be an interference with both breeze and sparks. In a general way it is also better to have a patient lay aside keys, watch, eyeglasses, etc., if local applications are to be made in their vicinity; but in most cases the tact of the operator will sufficiently avoid these sources of discomfort, and it is better, if possible, to request few changes in a patient's garments. It is rarely necessary, and the trouble of taking off her corsets for treatment will not increase the popularity of static electricity with a fashionably attired lady. But all our care in administering the breeze is not dependent upon hidden corset steels and metal hairpins. If the coat or dress waist be of silk or cotton fabric the best effect is obtained with the electrode almost as near as the current strength permits without a spark, gently sweeping the electrode over the region treated and drawing it away with such manipulations as experience discovers to suit the particular case in hand. If, however, the fabric is of wool the sensation produced may be unpleasant. If tightly woven and thick the breeze will perhaps, be scarcely felt, and must be applied correspondingly near. If the woolen garment be of loose texture it may be difficult to find any distance at which the electrode may be held to make the negative breeze agreeable to the patient. Certain desired effects may, however, be had by rapidly sweeping the electrode to and fro, and the prickling may be modified in various ways, such as covering the part with a handkerchief or towel, diminishing the speed of the machine, or by leaking off part of the current supply. An exceedingly mild and exquisite breeze may be obtained, when extional conditions call for the utmost refinement in our measures, by simply holding a finely pointed electrode in the hand without grounding it in any other way. It should be grasped by the operator upon the metallic part without opposing any of the insulating rubber handle, and, when moved with gentle passes near the patient's head or spine, the breeze imparted is of the mildest nature.

At times the reverse is desired, and we wish to increase the intensity of the breeze. This may be done by quickening the machine, by having the patient in direct connection with the positive pole, by placing a layer of flannel cloth over the part, if it is covered with a less resisting substance; but most of all, the activity and force of the breeze may be increased, while its irritation is often diminished, by interrupting the current by the author's method, as elsewhere described. On the whole the breeze application is susceptible of great variety, and if skillfully handled, with due tact and prudence, it will do more than any other form of electrical application to establish a large and gratified clientele. If the physician who wishes to excel in technique will seat himself upon the platform and personally test the sensations which the spray electrode will produce under the different conditions we have referred to, it will be time well spent and money saved; for a disagreeable shower of "pins and needles" may lose a new and nervous patient as readily as a luckless spark.

The static spark requires to be somewhat sparingly and prudently administered. Its redeeming feature, which alone preserves it from obloquy, is its tremendous power for good. If the suggestions here made

are followed, it will be disarmed of its more serious drawbacks and will be a most potent influence in contributing to the great sum of results attributable to static electricity. All cases do not require sparks, and when sparks are especially indicated mild ones may often serve the purpose.

To apply sparks, we have the patient insulated as before and continuing to be electrified; either positively or negatively, as the case may be. In our present illustration we have the positive pole attached to the platform. The spark is given with a spherical electrode usually, although any metallic electrode will give off some kind of a spark, if it is placed in a position to do so. The round extremity of the electrode may be of various sizes, and the thickness of the spark will be partly dependent upon the surface area of the ball. We take the largest one—say two inches and a half in diameter—attach it to the grounding gas fixture by the chain we have already used in employing the breeze electrode, and explain to our patient what is coming. Never apply a spark without first telling the patient to expect it. It is rarely advisable to administer sparks at a first sitting, if the patient is a stranger. After several treatments the system acquires a degree of tolerance, especially after confidence has been established by the tact and skill of the operator. If the patient is an acquaintance a brief explanation may suffice to prepare him or her for any form of application that may be desired, but it is my custom to know all nervous patients who have never had sparks exactly what they are, tell them how they feel, and obtain their confidence before administering this treatment. I then slow down the machine, if necessary, leak off part of the current force with my foot against the platform, and deliver a single mild spark upon a part where it will be well borne, usually the fleshy part of the middle thigh or upon the spine. This done, the patient's uncertainty and dread is ended. She has felt just what the spark is, and seldom offers any further objection. Not always is the spark found to be disagreeable. A surprising number of patients will claim to really enjoy mild and skillfully directed sparks. Cases will be met in practice in which, indeed, the spark is the most welcome form of treatment. The torpid tissues of a paralytic limb may be so insensible to stimulation that the heaviest sparks that can be obtained from an ordinary machine are calmly witnessed by the patient, who regards the blows with manifest indifference; and in morbid states of sluggish natures and lymphatic temperament, the sparks will seldom raise any objection.

If the long spark is discovered to be painful and exceedingly distressing, it is well to be very sure that it is indicated before giving it. It is generally found to be most bearable, most welcome and most beneficial where it is most truly indicated; and, on the contrary, it is least tolerable when least required, though there are exceptions to this rule. A toleration also is often speedily developed. Once across the Rubicon with a new patient, the strength and vigor of your sparks, which have always at first been mild, may be adjusted to fit the case, but let the accession of vigor be imparted gradually. Sparks should be no heavier than needed to do the work. They should first be tested in a mild form before resorting to the most powerful that can be given. They should be clean, thick, distinct and single; with both an interval of time and a "change of base" between everyone administered. A rapid fusillade of sparks is often unpleasant. A number upon the same spot is apt to create a tenderness. A long thin spark is usually stinging, while a thick one is less so. If the spark "splits" and gives off fragments, seek the cause and correct it, for such a spark produces an uncomfortable sensation. About the throat and various parts of the body it is often desirable to accurately localize the spark, while attracting promontories near by render this difficult to accomplish. A spark-director is made for such a purpose, but it is expensive. An insula-

ting plate of vulcanite, or even of wood, pierced in the centre for the passage of the spark, is also occasionally employed. These devices, however, are seldom an absolute necessity There is scarcely a spot upon the exterior of the body where a spark may not be exactly placed by drawing aside the adjacent parts, slowing the machine, and sending the ordinary electrode to the spot with a quick, sharp stroke. A nearby prominent part may be protected also by laying over it a folded paper, or something to obstruct and lessen its attraction. Having a case for powerful sparks in hand, we may now increase the effect in several ways. Putting the machine into more rapid action is usually sufficient in favorable seasons. If more than this is required, we may again make direct metallic connection between the patient and the machine. The conducting rod or chain may be held in both hands or placed under both feet. Caution will be advisable if this is done, for the first result may surpass your expectations. If this proves less powerful than is desired, however, as may be the case in damp and summer weather, a pair of small Leyden jars may be brought into the circuit.

Medicine.

IN CHARGE OF

DR. E. W. BING, Chester, Pa.

THE BICYCLE AND MEDICAL PRACTICE.

The use of the bicycle has expanded and developed from a salutary athletic exercise into a great social obsession. It has seized upon every class of seciety, both sexes, all ages, and every condition of life. It is taken up by the well because it makes them feel better, by the invalid because it makes them well, by tired people because it rests them, and by the rested because it makes them feel tired. The fat ride to get thin and the thin ride to get fat. It has displaced the horse, and in women has, in a measure, replaced the uterus. It has made the simple and ancient custom of walking most unpopular, it has cut down the function of the steam car, and competes successfully with the suburban trolley. The doctors have taken it up and expressed their approval of it, and we are far from saying a word in opposition. The bicycle has come to stay, though not with quite the omni-present activity which it now enjoys. Already we notice grave and reverend seigniors in our profession riding along the cobble-stones in their golf suits instead of lying comfortably back in their victorias. Time that used to be spent in serious scientific pursuits at the hospital, in the laboratory, and at the desk is now shortened in order to enjoy a ride up the Boulevard. The bicycle has cut down the scientific activity of the New York profession at least fifty per cent. already.—The Post-Graduate.

NEW FOOD FOR CONSUMPTIVES.

Dr. Brewer, of Chicago, has a new idea concerning food for consumptives. In addition to inhalation of the fumes of vinegar he feeds them on peanuts, gives them all they can eat without dangering their digestive organs. Two young ladies who had been the rounds of cod liver oil and tonics without material benefit, were put on his treatment and recovered. Concerning the diet he says: "I now commenced feeding (do not laugh) peanuts. One would think this a very indigestible diet, but they craved them, and it has always been my policy to find out what my patients desire to eat, and unless it is too unreasonable I humor them. Both young ladies have become quite plump, and after a year's inhalation have ceased coughing, and I pronounced them well. The peanut was long known as an excellent fat producer, and much more agreeable than rancid stark oil that oftentimes is sold for cod liver oil. While not all can digest peanuts, a great many even with feeble digestion, eat them without discomfort. It beats the

Koch lymph and is the most satisfactory treatment I have ever tried for these diseases."—Med. Fortnightly.

BICYCLING FOR WOMEN.

The much-discussed question as to whether bicycling is per se an exercise suited to women is, perhaps, now of minor importance, since it has become fashionable, and will, consequently, be adopted by the gentler sex, without much regard as to its immediate or remote effects. Its popularity is, however, a very satisfactory proof as to its capacity as a giver of health and pleasure, since it is not conceivable that the bicycle could ever have won its way, as did the corset, for instance, as a fancied adjuvant to physical charms. The late Dr. William Goodell, wise in an unusually wide experience, gave the exercise his unqualified indorsement, and from the almost entire absence of adverse criticism, it is apparent that the majority of gynecologists are of the same mind. The whole question is an exceedingly simple one, and has been summed up by Dickinson (American Journal of Obstetrics), who concludes a very clear and complete paper upon this subject as follows:

Under proper conditions of costume and posture, with care that the exercise be gradually increased and properly graded for the individual case, and where there is no acute inflammation to contra-indicate it, bicycling will probably show itself capable of large results as an agent in curing pelvic disorders, since it is one of the few exercises which attract women.

In view of woman's disabilities and the disadvantages under which she has suffered in attempts to obtain interesting and beneficial muscular exercise, it seems hardly too much to say that the promise from the bicycle is far-reaching. Through it and the habits it will engender we look for better dress, freer dress, shorter dress in bad weather; for better exercise, for out-of-door activity, for steadier nerves, stronger muscles, painless periods, easy labors.—Med. Reporter.

Therapeutics.

IN CHARGE OF
DR. LOUIS LEWIS, Philadelphia.

FERRATIN.

Marfori (Archives Italiennes de Biologie, Tome xxiii, Facs. i-ii, p. 62) gives the results of some new researches on the absorption of ferratin and its biological action. He says that the different conditions in which the mucous membrane of the intestine happens to be largely affects the quantity of ferratin that can be absorbed. In order that absorption may take place, before all things it is necessary that the preparation should not be decomposed in the gastro-intestinal canal, but the sulphuretted hydrogen, which is sometimes present in the intestine in large quantities, may attack the ferratin slowly, and bring about its decomposition. Researches on the absorption of this substance may, therefore, give very different quantitative results according to the greater or lesser intensity of the putrefactive processes going on in the intestine. The large amount of absorption (13.7 to 41.68 per cent.) that occurs after administration of saline purgatives Marori ascribes in part to the asceptic condition of the intestine, and in part to the fact that saline purgatives cause a desquamation of the upper layers of the intestinal epithelium, and therefore expose a thinner layer of young cells through which absorption more readily takes place. When the gastro-intestinal canal is in its normal condition the absorption of ferratin is much less, according to Schmeideberg, but since the latter's experiments render it impossible to distinguish between the iron of the ferratin and the iron introduced in the food, Marfori proceeded as follows: He administered to the animal a saline purgative, and fed it solely upon milk; the lower part of the intestine was also cleared by saline enemata. About a week later ferratin was given in repeated doses. The amount absorbed varied between 11 and 30 per cent. of the amount administered. With refer-

ence to the question whether ill-effects might not arise from long-continued administration of the drug, Marfori found that it was impossible to poison animals by injecting large doses into the blood; nevertheless a man would need to take about 2 1-4 pounds of ferratin in the course of a month to produce a similar result, assuming as a basis for calculation experiments on dogs. Since he would actually, however, only receive about one-twentieth of that amount, there is no danger in continued administration of the drug, a statement confirmed by clinical experience.

TRIONAL IN INTERNAL DISEASES.

Spitzer (Wien. klin. Woch., June 6, 1895) reports the results obtained in Drache's clinic from the use of this drug. It was tried in a great number of cases (25 of which are given in detail), and a dose of 1 to 2 g. given in the early morning after several sleepless nights. Conclusions: (1) Trional is not only a hypnotic for different forms of psychoses, but acts equally well in lung (especially phthisis) and heart cases. (2) Sleep is induced quickly, and continues as a rule during the following night. (3) Some patients remained stupid with sleep even the whole of the next day, but as a rule the sleep resembled that of a normal person. (4) No bad effects on the circulation or respiration were observed in any case. (5) In isolated cases retching, and even vomiting, occurred on waking; this seemed to be due to idiosyncrasy. (6) The results were also excellent in insomnia due to intercostal neuralgia, rachialgia, sciatica, lightning pains of tabes, and even the pain of cancer. (7) The effects approached those of morphine more nearly than of any other hypnotic.

BENZO-NAPHTHOL IN TROPICAL DYSENTERY.

Benzo-naphthol has been employed by Dr. Jose A. Clark in an epidemic of dysentery which occurred in Alquizar, Cuba, and during which he had 137 cases of the disease under treatment; of these he considered 23 as serious and 114 as of a mild type. The mortality amongst those treated with ipecacuanha and calomel, opium, etc., amounted to 9 per cent., while that amongst those threated by benzo-naphthol was scarcely more than 2 per cent. This drug had the great advantage over the more usual ones of not causing vomiting, salvation, or depression of the circulation, and it also brought patients through the attack more rapidly. Forty-five grains per diem were given to adults and but little less to children.—Lancet.

HYPODERMIC INJECTIONS OF CARBOLIC ACID IN TETANUS.

By means of a series of subcutaneous injections of carbolic acid Dr. Osherovski has successfully treated an apparently hopeless case of tetanus. The patient was a man who had a gunshot wound in his left leg, which was followed ten days later by tetanus, commencing in the muscles of the lower jaw and going on to general spasmodic contractions. Morphia, opium, and chloral in large doses were given without any effect, the spasmodic seizures only becoming more frequent and more severe. After the tetanus had lasted for ten days subcutaneous injections of carbolic acid of the strength of 2 per cent. were tried, twelve drops being injected every three hours. After two days of this treatment a marked improvement manifested itself, the spasmodic attacks becoming less violent and the respiration more easy. The injections were continued until twenty-eight had been given, and a few days later the patient was discharged completely recovered.—Lancet.

FORMOL AS A DISINFECTANT.

As a substitute for sulphurous acid, now commonly used in the disinfection of rooms and articles of wearing apparel after the occurrence of infectious disease, MM. Berlioz and Trillat some time ago proposed the use of formol or formaldehyde,

and M. Bardet has recently undertaken a series of experiments in conjunction with M. Trillat which appear to show that the substance in question when prepared in considerable quantity and disengaged in a room or even in one of the rooms of a house where all the internal doors are open, is a perfectly safe and efficacious disinfectant. They found that by the use of an apparatus converting one litre of methylic alcohol into formol per hour for six hours a set of rooms with a capacity of 300 cubic metres could be absolutely disinfected, and this without the slightest deleterious effect upon furniture or other articles contained in the rooms, a few hours' ventilation being sufficient to restore all the contents of the rooms to their original condition. The experiments were conducted by means of injecting animals with cultures obtained from pieces of woolen, cotton, or other fabric which had been previously impregnated with various forms of virus and then subjected to the action of formol after various periods.—Lancet.

PERMANGANATE OF LIME.

M. Bordas read a paper, at the meeting of the Academie de Medecine, on the antiseptic properties of permanganate of lime, a salt which crystalizes in deliquescent brown needles. It decomposes easily a frigore in contact with organic matters, into oxygen, oxide of manganese and lime. Its action on micro-organisms is very powerful and superior to bichloride of mercury, while it has the advantage of not being either toxic or caustic. He made the following experiment to test its efficacy. He composed a solution of the salt in the proportion of half a drachm to a litre. On the other hand, he introduced into several recipients, containing each a litre of water, the bacillus coli communis, bacillus virgule of Koch, bacillus of Eberth, streptococcus of erysipelas, and the bacillus of Charbon.

Cultures of these different micro-organisms were made after addition of the solution of permanganate of lime.

The coli communis was the most sensitive to the action of the solution, one drachm being found sufficient to sterilize a litre of culture, requiring only half a minute to effect its influence, although the culture contained 80,000 colonies to the centimetre cube (20 drops). The other bacilli were similarly destroyed, but it took a longer time, from one to five minutes. M. Bordas made also comparative experiments with permanganate of potash and found that permanganate of lime was, at least, one hundred times more active. Med. Press.

Miscellany.

HONORS FOR DR. ROUX.

Dr. Roux, the inventor of the anti-diphtheritic serum, was on the 5th of July, accorded a grand reception at the Hotel de Ville by the scientists and municipality of Paris. In the course of the speech of the president he spoke of Dr. Roux's labors in the Pasteur laboratory, and stated that the result of the discovery had been that the mortality from diphtheria had fallen from 50 to 12 per cent. He also said that the demand for admission to Pasteur's laboratory for a course of study was so great that foreigners desiring to be admitted were obliged to send in their applications three or four years in advance.

ADOLESCENT FEVER.

According to Dr. Huchard, fever in the growing period of life is more frequent than is supposed, and depends on physical exertion in general. It is witnessed in children who are allowed at certain periods to indulge in exercises in disproportion to their strength; the result is a too rapid destruction of a too great quantity of matter, and the consequent imperfect elimination of the waste tissue.

Under these circumstances, the fever in the night, or the day following a long walk or a ride on the bicycle, after a game of football or lawn tennis, announces itself by pro-

found lassitude, sunken eyes, urine scanty and loaded with urates or phosphates,. pain in certain groups of muscles, and wakefulness. Sometimes the exertion provokes congestion of the epiphysis and osteitis. When a child presents, therefore, attacks of fever, continued or irregular, without apparent cause, the limbs should be carefully examined, and the different points of the body where osseous congestion might be suspected, and if pressure on these points produced pain, absolute rest should be imposed, and the parts wrapped up in wet dressings covered with oil silk; this treatment, with a little calomel, will generally arrest the fever.—Med. Press.

TREATMENT ON SNAKE-BITE BY CALCIUM CHLORIDE.

Phisalix and Bertrand, at the Academie des Sciences (Sem. Med., June 19), report the result of experiments with chloride of calcium in cases of snake-bite. Its therapeutic action is not, as thought by Calmette, due to formation of some substance neutralizing the poison, nor to its entering the circulation and there destroying the poison as it would in a test tube, but depends simply on its local effect; it destroys the poison locally, and causes the tissues to slough, and so prevents absorption of the toxic material. Hence they conclude that the injections of calcium chloride must be made deeply at the actual spot where the fangs entered, and that they are useless if made in any other part.

The Governor of Pennsylvania has signed the following appropriation bills for Philadelphia institutions, passed by the Legislature during the session just closed: University of Pennsylvania, $200,000, and the hospital department of the same,$55,-000; Jefferson Medical College Hospital, $112,000; Medico-Chirurgical Hospital, $150,000; Kensington Hospital for Women, $5000; Maternity Hospital, $5000; Memorial Hospital, Roxborough, $7000; Philadelphia Orthopedic Hospital, $5000; Philadelphia Lying-in Charity, $6000; Gynecean Hospital, $25,000; St. Christopher's Hospital for Children, $4000; Woman's Hospital, $8000; Rush Hospital for Consumptives, $10,000; German Hospital, $20,000; Philadelphia Home for Infants, $5000; also Homeopathic Medical and Surgical Hospital and Dispensary, $50,000; Children's Homeopathic Hospital, $8000; Hahnemann Medical College Hospital, $57,000. Outside of Philadelphia the following appropriations were also made: Columbia Hospital, $3000; Scranton West Side Hospital, $4000; Reading Hospital, $15,800; Reading Homeopathic Hospital, $10,000; South Bethlehem, St. Luke's Hospital, $20,000; Easton Hospital, $15,-000; Conemaugh Valley Memorial Hospital, $10,000; Chester Hospital, $10,000; Scranton Lackawanna Hospital, $25,000; Lebanon, Good Samaritan Hospital, $6000; Pittston Hospital Association, $14,000; Carbondale Hospital Association, $12,000; Pottstown Hospital, $14,000; Pottsville Hospital, $10,000; Charity Hospital, Montgomery County, $9500; Lancaster General Hospital, $4000; Chester County Hospital, $6500; Jefferson County, Adrian Hospital Association, $10,000; Altoona Hospital, $12,000; Westmoreland Hospital at Greensburg, $6000; Wilkesbarre City Hospital, $25,000; Williamsport Hospital, $12,000; Pennsylvania State College, $212,000; Western University, $50,-000.

THE TREATMENT OF GASTRIC ULCERATION.

A French physician, Fourrier by name, describes a method of treating ulcerative conditions of the stomach by introducing through a stomach tube two and a half or three drachms of subnitrate of bismuth, suspended in fifteen ounces of water. Before doing so any food or mucous is cleared out by washing with a solution of bicarbonate of soda. The bismuth and water is rapidly introduced and allowed to remain for ten minutes, the tube being removed. The bismuth is thus allowed time to deposit on the inflamed and ulcerated mucous membrane, and the water is then carefully withdrawn and

should come away clear, leaving the salt behind. Fourrier has had marked success with the method, especially in cases of chronic ulcerative gastritis from alcoholism and in gastric ulcer in chlorotic girls.—Med., T. and H. G.

ABORTIONISTS.

It has for long been believed that in the United States there is a regular system of abortions unequaled in its extent, perhaps, in any other country—with the possible exception of France. Some color has been given to this belief by an official inquiry which has recently been made in New York, and which has elicited revelations of a most surprising nature. For one thing it has been proved that there are at least two hundred professional abortionists who have hitherto been plying their trade in New York, with the cognizance of the police. It has even been asserted in evidence that they have been protected by the police for payment of blackmail, and that as an example of the tax which these guardians of the law have levied upon these criminals, one abortionist alone paid hush money to the amount of nearly three thousand dollars within a period of six weeks.—Med. T. and H. G.

THE BEGINNING OF STRUCTURAL DISEASE.

In the treatment of organic or structural diseases, as of the nervous system, the blood-vessels, and various vital organs, the fact is quite generally overlooked that the structural change is a consequence and not an actual disease. The real disease is the morbid process which has resulted in the tissue change. Nothing could be more unphilosophical than the limitation of the therapeutic efforts to such measures as may be supposed to be calculated to affect favorably the morbid structures. A rational mode of treatment must be based upon a recognition of the producing cause of the morbid changes which have taken place.

The researches of Bouchard and other modern investigators have thrown great light upon this subject, and have placed upon more than probable grounds the theory that the presence in the blood and tissues of various morbid substances of a toxic character, such as uric acid and various leucomaines and ptomaines, originating in the tissues as the result of imperfect oxidation or absorbed from the alimentary canal wherein they are produced by microbic action and morbid digestive processes, constitutes the real morbid entity in a large number of organic or structural maladies, especially those of the nervous system and kidneys.

In the treatment of these affections, it is, then, of the utmost importance that the physician should look carefully after the processes of digestion and respiration. These are the two great means by which the blood is to be purified. The exclusion from the dietary of poisonous substances and of such food substances as readily undergo putrefactive processes in the alimentary canal, and the introduction of an increased quantity of oxygen whereby the poisons resulting from morbid tissue changes may be destroyed by oxidation, constitute the most important measures for combating the onward march of an organic affection. Remedies of any sort, if aimed directly at the morbid tissue itself, will fail to accomplish anything more than temporary palliation, unless combined with measures which strike at the root of the disease. An ideal mode of treatment will necessarily include both classes of remedies.

Bacteriology and physiological chemistry are opening up for us almost daily new lines of thought, new methods of treatment and new possibilities of cure.—Modern Medicine.

CINNAMON FOR CANCER.

The Cincinnati Lancet-Clinic quotes from the Pacific Record as follows: J. Carne Ross, M. D., physician to the Ancoats Hospital, Manchester, communicates a letter to the Lancet of July 21, 1894, in which

he gives the results of some experiments he has undertaken on the above subject. Dr. Ross states that while carefully guarding himself from saying anything that would suggest that cinnamon should be regarded as a so-called specific in cancer, yet he has invariably found that where pain was present it ceased, that fetor disappeared, that the general health invariably improved after using the drug. The best results have, on the whole, been obtained where the tumor was cut off from the air by being situated either in the stomach, the rectum, the uterus or the mammae, where the superjacent skin and covering of the nipple were intact. Dr. Ross then gives particulars of five cases which were under the cinnamon treatment, in each of which marked improvement ensued. The preparation of cinnamon employed was a strong decoction, made by taking one pound of Ceylon sticks and boiling slowly in a closed vessel for eight hours in three pints of water till the water is reduced to one pint, pouring off without straining. The mixture should be shaken up before taking each dose; patient to drink half a pint every twenty-four hours, the half pint to be divided into such doses as best suit the patient.

A NEW METHOD OF TREATING THE CONGENITAL DISLOCATION OF THE HIP.

Mr. Arbuthnot Lane recently presented at the Clinical Society of London, two patients upon whom he had operated by a new method. This consisted in removing the head of the femur from its movable position on the dorsum ilii to a secure position below the anterior inferior spine of the ilium, to which it was sewn, with the result that the lordosis was lessened and the walking powers of the patient were increased to very little below the normal. The advantage will not be equally great when there is a double dislocation. The operation is not intended to supplant that of replacing the head of the bone.

BOLIVIA FOR CONSUMPTIVES.

The Consul General of Bolivia, in a letter to the newspapers, calls attention to the value of Bolivia as a residence for those who are of a consumptive tendency. He says that the air in the regions of La Paz, Sucre and Oruro is so highly rarefied and dry that it kills the bacilli, the length of time required depending upon the stage the disease has attained. Patients in the first or second stage would, he believes, be completely cured after a short sojourn, but those in the third stage would probably have to remain a few years. No medical treatment, he asserts, is required, the air being all that is necessary, although an almost complete abstinence from alcoholic drinks is essential. He further states that "if persons in the earlier stage of the complaint would go without delay they would, after a few months, be able to return completely restored to health. Numerous persons suffering from consumption are annually sent to Italy, etc., where a cure is generally hopeless, whereas if they would only undertake the longer journey to Bolivia they would, in most cases, regain their health."—Med. T. and H. G.

URICEDIN.

Uricedin is composed of citrate of potash, sulphate of soda, chloride of sodium and citrate of lithium. It is a white and granular substance, soluble in water. It is efficacious in the treatment of the uric acid diathesis, and may be given in large doses —up to 300 grains daily.

HORSE MEAT TEST.

The Medical Record's correspondent from Paris says that horse bouillon can be distinguished from that made of beef or mutton by means of iodine. The horse bouillon colors reaction paper red-brown, shading toward violet. This should be regarded as valuable information by those who object to eating horse flesh.